

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Li, et al.

Examiner:

Appl. No.:

10/649,951

Group Art Unit:

Filed:

August 28, 2003

Docket No.:

70003.0002USD1

Title:

Symmetrically Disubstituted Aromatic Compounds and Pharmaceutical

Compositions for Inhibiting Poly(ADP-ribose) Glycohydrolase, and Methods for

Their Use

INFORMATION DISCLOSURE STATEMENT (37 C.F.R. § 1.97(b))

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

With regard to the above-identified application, the items of information listed on the enclosed Form PTO-1449 are brought to the attention of the Examiner.

This statement should be considered because it is submitted within three months of the filing date of the above-identified application, which is not an application under 37 C.F.R. § 1.53(d). Accordingly, no fee is due for consideration of the items listed on the enclosed Form PTO-1449.

In accordance with 37 C.F.R. § 1.98(d), copies of the listed patents, publications or other information are not provided because they have previously been cited and submitted to the U.S. Patent and Trademark Office in parent application, U.S. Serial No. 09/829,827 filed on April 10, 2001, now U.S. Patent No. 6,635,786. Enclosed for the Examiner's information is a copy of the International Search Report. Applicants note references listed in the search report were previously cited to the Examiner.

No representation is made that a reference is "prior art" within the meaning of 35 U.S.C. §§ 102 and 103 and Applicants reserve the right, pursuant to 37 C.F.R. § 1.131 or otherwise, to establish that the reference(s) are not "prior art." Moreover, Applicants do not represent that a reference has been thoroughly reviewed or that any relevance of any portion of a reference is intended.

Application No. 10/649,951 Docket No.: 70003.0002USD1

Consideration of the items listed is respectfully requested. Pursuant to the provisions of M.P.E.P. 609, it is requested that the Examiner return a copy of the attached Form PTO-1449, marked as being considered and initialed by the Examiner, to the undersigned with the next official communication.

It is believed that there are no fees required to submit this Information Disclosure Statement. However, the Commissioner is authorized to charge any fees to Deposit Account No. 13-2725, if necessary.

Respectfully submitted,
MERCHANT & GOULD, P.C.

Registration No. 43,858

29700

Dated: November 26, 2003

Merchant & Gould P.O. Box 2903 Minneapolis, MN 55402-0903 202-625-8380 Customer No.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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SYMMETRICALLY DISUBSTITUTED AROMATIC COMPOUNDS AND

3 PHARMACEUTICAL COMPOSITIONS FOR INHIBITING POLY(ADP-RIBOSE)

GLYCOHYDROLASE, AND METHODS FOR THEIR USE

TRANSMITTAL SHEET

Mail Stop OIPE Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

We are transmitting herewith the attached:

Transmittal Sheet

Information Disclosure Statement

Form PTO-1449 citing 47 references

☐ Copy of International Search Report dated 2/27/2002

Return postcard

It is believed there is no fee required to file the Information Disclosure Statement. However, the Commissioner is hereby authorized to charge any fees necessary to Deposit Account No. 13-2725.

Date: Nov. 26, 2003

Name: Mark J. Pino

Registration No.: 43,858

MERCHANT & GOULD P.C. P.O. Box 2903, Minneapolis, MN 55402-0903 202.625.8380

> Customer No. 29700

Date Mailed: November 26, 2003

FORM 1449 D INFORMATION DISCLOSURE STATEMENT	Docket Number: Application Number: 10/649,951		
NOV 2 6 2003 2 IN AN APPLICATION	Applicant: Li et al.		
(Use several sheets if necessary)	Filing Date: August 28, 2003	Group Art Unit:	

			U.S. PATENT DOCUMENTS	3			
EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS		OPRIATE
	3,817,992	06/18/1974	Sill et al.	260	240.1		
	3,859,286	01/07/1975	Fleming et al.	260	247.5		
	3,867,531	02/18/1975	Shemano	424	248		
	3,890,328	06/17/1975	Palopoli et al.	260	293.62		
	3,907,791	09/23/1975	Albrecht et al.	260	246		
	3,937,833	02/10/1976	Shemano	514	316		
•	3,937,835	02/10/1976	Shemano	424	275		'''
	3,947,593	03/30/1976	Shemano	424	330		
	3,957,989	05/18/1976	Fleming et al.	424	248		
	4,008,240	02/15/1977	Sill et al.	260	293.58		_
	4,041,165	08/09/1977	Shemano	424	267		
	4,118,232	10/03/1978	Piller et al.	96	99		
	5,521,160	05/28/1996	Chucholowski et al.	514	42		
	5,587,384	12/24/1996	Zhang et al.	514	309		
		FO	REIGN PATENT DOCUMEN	NTS	· · · · · · · · · · · · · · · · · · ·		
	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANS	LATION
						YES	NO
	DE 1950972	4/16/1970	Germany				х
	JP 03 174540	7/29/1991	Japan				х
	WO 99/11645	3/11/1999	PCT				
	JP 10-101591	04/21/1998	Japan				х
	ОТН	IER DOCUMEN	TS (Including Author, Title, Dat	e, Pertinent Pag	es, Etc.)		
			bstituted Aromatic Compounds. Them., 17(8):886-889 (1974).	A New Class o	f Antiviral Agents. 3.	2,7-Bis(aminoa	cyl)fluore
			bstituted Aromatic Compounds. n., 17(11):1150-1156 (1974).	A New Class o	f Antiviral Agents. 6.	Bis-Basic-Subs	stituted
	Alvarez-Go 218(2):67-7		y(ADP-ribose) Catabolism in M	ammalian Cells	Exposed to DNA-dan	naging Agents,	' Mutat. Ro

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EXAMINER		DATE	CONSIDERED	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.

FORM 1449 O P ENFORMATION DISCLOSURE STATEMENT	Docket Number: 70003.0002USD1	Application Number: 10/649,951	
NOV 2 6 2003 4 IN AN APPLICATION	Applicant: Li et al.		
(Use several sheets if necessary)	Filing Date: August 28, 2003	Group Art Unit:	

	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
	Aoki et al., "Novel Inhibitors of Poly(ADP-ribose) Glycohydrolase," Biochim. Biophys. Acta, 1158(3):251-256 (1993).
	Aoki et al., "A Macrocircular Ellagitannin, Oenothein B, Suppresses Mouse Mammary Tumor Gene Expression via Inhibition of Poly(ADP-ribose) Glycohydrolase," <i>Biochem. Biophys. Res. Comm.</i> , 210(2):329-337 (1995).
	Cain et al., Potential Antitumor Agents. IX. Bisquaternary Salts," J. Med. Chem., 11(5):963-966 (1968).
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	DiCioccio et al., Inhibition of Deoxynucleotide-Polymerizing Enxyme Activities of Human Leukemia Lymphoblasts and Simian Sarcoma Virus by Tilorone and Thirteen of Its Analogs," J. Natl. Cancer Inst., 60(3):533-536 (1978).
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	Ha, et al., "Poly(ADP-ribose) Polymerase-1 in the Nervous System," Neurobiology of Disease, 7(4):225-239 (2000).
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	Hein et al., "Mucopolysaccharidosis and Lipidosis in Rats Treated with Tilorone Analogues," <i>Toxicology</i> , 58(2):145-154 (1989).
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	Maruta et al., "Characterization of Two Forms of Poly(AD-ribose) Glycohydrolase in Guinea Pig Liver," <i>Biochem.</i> , 30(24):5907-5912 (1991).
	Olofson, et al., "Tests of a Piperidino Mask for the Protection of Functionalized Carbon Sites in Multistep Syntheses," J. Org. Chem., 49(15):2795-2799 (1984).
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N.A.	Schafer et al., "Inhibition of Rauscher Leukemia Virus and Avian Myeloblastosis Virus DNA Polymerases by Tilorone (NSC-143969) and its Analogs," Cancer Chemother. Rp., 58(6):821-827 (1974).
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	Slama et al., "Mechanism of Inhibition of Poly(ADP-ribose) Glycohydrolase by Adenosine Diphosphate (Hydroxymethyl)pyrrolidinediol," <i>J. Med. Chem.</i> , 38(21):4332-4336 (1995).
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TRADENARM	<u> </u>	
TRAUE		OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
		Tsai et al., "Effects of Chemically Defined Tannins on Poly(ADP-ribose) Glycohydrolase Activity," <i>Biochemistry Int'l</i> , 24(5):889-897 (1991).
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		Ying and Swanson, "The poly(ADP-ribose) Glycohydrolase Inhibitor Gallotannin Blocks Oxidative Astrocyte Death," NeuroReport, 11(7):1385-1388 (2000).
		Wachsman, "The Beneficial Effects of Dietary Restriction: Reduced Oxidative Damage and Enhanced Apoptosis," <i>Mutat. Res.</i> , 350(1):25-34 (1996).
		Wallis et al., "Neuroprotection Against Nitric Oxide Injury with Inhibitors of ADP-ribosylation," NeuroReport, 5(3):245-248 (1993).
		Wielckens et al., "DNA Fragmentation and NAD Depletion," J. Biol. Chem., 257(21):12872-12877 (1982).

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